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R E P O R T
ON THE
ROADS MADE AT THE PUBLIC EXPENSE,
IN THE
SOUTHERN DISTRICT IN IRELAND:
BY RICHARD GRIFFITH,
CIVIL ENGINEER.

Ordered, by The House of Commons, to be Printed, 27 July 1831.

TO THE RIGHT HONOURABLE E. G. STANLEY,
Esq. &c. &c.

Dublin, April 12th, 1831.

SIR,

HEREWITH I have the honour to send a Report, drawn up by me in pursuance of the Order of The House of Commons of the 22d of February last, showing, in detail, the situation, object and extent of the several Roads made by me in the SOUTHERN DISTRICT in Ireland, including the Counties of *Cork, Kerry, Limerick* and *Tipperary*; together with a Statement of the Cost of each respectively, distinguishing the Amount paid for Roads made, from Bridges and other Works of masonry erected, and specifying the separate Expenditure on each such Road and Bridge.

I have the honour to be, Sir,

Your most obedient, humble servant,

Richard Griffith,
Civil Engineer.

(True copies.)

C. W. Flint.

High Office, London, }
July 27th, 1831. }

REPORT, &c.

IN the month of June 1822 I was appointed by the Marquis Wellesley to conduct the Public Works which were about to be commenced in the South of Ireland, under the Acts 1 Geo. 4, c. 81, and 3 Geo. 4, c. 34.

The District committed to my charge comprehended the counties of *Cork, Kerry, Limerick and Tipperary*; and several Roads and Bridges have since that period been completed by me in those counties at the public expense, and the accounts of the expenditure have been carefully audited and passed by the Commissioners of Public Accounts.

Between the period of my appointment and the present time I have submitted to the Lord Lieutenants several Reports, stating the progress of each of the works, and the benefits which the country would probably derive from their completion; the whole of which have been printed by order of the House of Commons; consequently, in my reply to the present Order, it is unnecessary that I should enter into all the detail which is already before the House, I shall therefore confine myself to a recapitulation of the leading facts.

The principle laid down by the Marquis Wellesley for my guidance in selecting the lines for new roads which I should recommend for adoption, was, the opening direct and easy communications through mountainous and other districts, in which at the time there were no roads passable for wheel carriages, and where it was not probable any good roads would be made under the ordinary circumstances of the country through the medium of the Grand Jury laws.

Acting on this principle my attention was, in the first instance, directed to a very extensive tract of hilly country, situated on the confines of the counties of *Cork, Kerry and Limerick*, bounded on the north by the river *Shannon*, on the south by the river *Blackwater*, on the east by the fertile plains of *Limerick* and *Cork*, and on the west by those of *Kerry*, and containing altogether an area of 970 square miles.

This district is populous in some parts; it contains two small villages, namely, *Newmarket* and *Abbeysfele*: the greater part of the country belongs to absentee landlords, and in consequence there are but three resident * landed proprietors.

In this extensive tract of country there were no roads passable, even for horsemen, in the winter months; and being nearly surrounded by a fertile and populous country, it became, during the disturbances of the winter of the year 1821 and the spring of 1822, the focus and asylum for whiteboys, smugglers and robbers, who by night made regular forays from it into the adjacent fertile country, and drove cattle into it as into a safe and impenetrable retreat.

It appeared to me, that notwithstanding its then desolate state, this portion of country contained in itself the seeds of future improvement and industry. The strata of which it is composed consists of stone, coal and calum, and the rocks which usually accompany those substances. The surface soil is clayey, but when drained and manured with lime, it soon becomes fertile, and produces excellent crops: anthracite, or calum, is abundant in many parts; and beds of solid coal are not unfrequently met with, particularly in the vicinity of the river *Blackwater*. The district is every where surrounded by limestone, and several hills containing that substance occur in the interior. Nothing then was wanting but good roads, to facilitate the transport and interchange of these different mineral productions, to make the country susceptible of the highest cultivation; a fact which is incontestably proved by the comparative fertility of the land in the vicinity of *Dromagh* colliery, where the soil is similar, but where there are communications with the neighbouring limestone country on which carriages can pass.

When

* Mr. Aldworth, who lives near the village of *Newmarket*; the Knight of *Glin*, who lives at *Glin*, on the river *Shannon*; and Mr. Leader, at *Dromagh*, on the banks of the river *Blackwater*; the distance between the residences of the Knight of *Glin* and Mr. Leader is 40 miles.

When I visited this country in the month of July 1822, the Insurrection Act was necessarily in full force, owing to the recently disturbed state of the country, and at the same time the people were in the utmost state of destitution in consequence of the great deficiency in the potato crop the preceding year.

On its being known that I was come to lay out new lines of road for the purpose of improving the country, and employing its people, I was surrounded by a multitude of wretched beings, who proposed to work for any wages I might offer, and (as I expressed in my Report of March 1828, which has already been printed by order of the House,) "whose appearance bespoke extreme poverty; their looks were haggard and their clothing wretched; they rarely possessed any tools or implements of husbandry beyond a very small ill-made spade, and, as might have been expected under such circumstances, the greater part of the country was unimproved and in a state of nature."

Having examined the country with great care, I recommended to the Lord Lieutenant the opening of three main lines of new road through this district; one to run nearly in a north and south direction from Newmarket in the county of Cork, to Listowel in the county of Kerry, a distance of 32 miles; a second, at right angles to the first, and nearly in an east and west direction from Newcastle in the county of Limerick, by the small village of Abbeyfeale, to the town of Castle Island in the county of Kerry, a distance of 37 miles; and a third, also in an east and west direction, but 13 miles to the south of the second, from Newmarket in the county of Cork, for a length of 14 miles towards Charleville in the same county. The whole of these roads have now been completed for upwards of two years, and the country has already derived considerable advantage from their completion.

By means of the new road from Listowel and the neighbouring portion of the county of Kerry and the city of Cork, its best market is diminished 37 miles, the new road being 37 miles shorter than the old one by Tralee and Killybegny, and at the same time it is far superior in point of level.

By means of the new road from Newcastle to Castle Island, the travelling distance between the city of Limerick and Killybegny has been diminished 29 miles, and in consequence, this road has now become the general line of communication between those points.

In my Report for the year 1828, I described the remarkable improvement which has taken place in the agriculture of the country, from the facility of access which was afforded by means of the new roads, and the consequent increase in the moral habits and industry of the people; and I am happy in being able to state, that the improvements continue to increase progressively, and that each year new farms are inclosed, and new houses built.

When I commenced the works very little corn was grown in the mountain country, there being no roads on which lime could be drawn to manure the lands, but within the last two years the produce in grain has been very considerable, and will no doubt continue to increase.

The beneficial effects to the property, and, consequently, tranquillity of the mountain country, may also be traced in the rapid improvement in the towns and villages situated on its borders.

In the year 1822, the town of Castle Island in the county of Kerry, situated at the western termination of the new road from Newcastle in the county Limerick, bore the most unequivocal signs of poverty in its inhabitants; the houses were universally dilapidated, and the windows and roofs broken; there was no inn, (at least none deserving the name), and no shop which could supply any thing beyond a farthing candle and a pennyworth of tobacco, and the street presented a mass of uneven rock, resembling a quarry rather than a road, and was nearly impassable for wheel-carriages. Within the last four years a great number of new houses have been built, all of which are two stories in height, are slated and otherwise well finished, among which is an excellent inn; several shops have also been established, at which clothing of all kinds, and groceries, can be purchased at moderate rates. The street has been levelled, formed, and an excellent road made, with footpaths on each side, neatly curbed with cut limestone*.

The village of Abbeyfeale in the county of Limerick, situated in the midst of a mountain country, has also been much improved by the opening of the new road, which

* The New Road was made at the expense of the proprietors of the town, without any assistance from the public.

which passes through it. In the year 1822 it contained but one slated house, which was occupied as a barrack by the military; several houses were without roofs, which had been destroyed during the disturbances of the previous winter, and its appearance was in every respect similar to Castle Island.

The Sunday after my arrival, I had an opportunity of seeing the inhabitants of the village and of the surrounding country going to the Roman Catholic chapel, on which occasion the peasantry appear always in their best clothes, but in this case their apparel was much inferior to any I had ever before seen. The men's hats and women's bonnets (where they had any) consisted of coarse straw or rush rudely put together, and generally much worn; the coats and cloaks were almost universally torn and ragged, and the whole population bore the marks of squalid poverty. In the year 1828, I had the pleasure to see the same people on a similar occasion; the change was almost incredible, the women displayed in their gowns and petticoats all the gaudy finery of Manchester and Glasgow; the men were substantially clothed, generally in blue coats, and wore, universally, good black hats, the straw plait having entirely disappeared; several new houses have also been built in this village, and several shops have been established.

In proof of the general tranquillity which remunerative employment has introduced into the country I shall merely state, that in the year 1822 there were large garrisons in the villages and towns of Newmarket, Kantark, Millstreet, Castle Island, Listowel, Abbeyfale, Glynn, Newcastle, Druncullagher and Lis-carrol, the whole of which are situated on the borders of the then inaccessible district. At present, with the exception of Newcastle, there are no troops in any of those towns; and the same persons who formerly were engaged in night marauding parties, are now beneficially employed in cultivating their own farms, and have become quiet and useful members of society.

Road through the Bogra Mountains.

The next tract of country which has been improved by the opening of new roads is the mountain district of the county of Cork, situated between the river Blackwater and river Lee, generally known by the name of the "Bogra Mountains."

This part of the country was similarly circumstanced with that already described, which is situated between the river Shannon and river Blackwater, and there were no possible roads through it, in consequence the inhabitants of the interior valleys had no means of manuring their land by lime, except by transporting it in pannier baskets on horses' backs, and their produce was necessarily brought to market by the same means. The rendering accessible the vast tracts of peat bog, situated in the interior of this mountain district, offered an additional inducement for making the new road through it, as the low lands, both to the north and south, were nearly destitute of fuel. The new road through the Bogra Mountains is 26 miles, 3 furlongs, 26 perches in length, of which 14 miles 4 furlongs were made by Mr. Griffith, and the remainder by contract. This road extends from Clonmeen Bridge, over the river Blackwater, to Loamount, on the river Lee; it was commenced in the year 1826, and completed in the year 1829.

The beneficial effects which the country has derived from this road are fully as striking as those already mentioned; new houses have been built and new inclosures made, and in several instances which have come within my knowledge the rent of the land has been more than doubled.

Road through the Mountains from Macroom to Glenflesk.

The third new road, made under my direction, to improve the mountain country in the Southern District, is that which extends from Macroom, in the county of Cork, to Glenflesk, in the county of Kerry.

The object to be obtained in making this road, in addition to the improvement of the country through which it passes, was the opening a more direct line of communication between the towns of Kenmare and Killarney, in the county of Kerry, with the city of Cork.

Previously to the commencement of this road the travelling distance from Kenmare to Cork was 88 statute miles, while by the new road it is but 57 miles, consequently there is a saving in distance between these points of 31 miles, while the whole length of new road is but nineteen miles. This road has also shortened the distance between Killarney and Cork 74 miles; and although it has been carried through

through a wild mountain district, and over a summit of 800 feet in elevation above Glenties, still owing to the regular ascent which has been preserved in attaining this elevation, the proprietors of the Cork and Kerry mail-coach have found it their advantage to transfer their coach to this new line of road, leaving the old one, which passed through a comparatively level country at the exterior of the mountains, but which, from the injudicious manner in which it had originally been laid out, presented a great number of steep and dangerous ascents and descents.

In respect to local improvement, I have to observe, that a new and very neat village, with a corn-mill and other appendages, has been erected at Ballyvourney, midway between Macroom and Glenties, and numerous inclosures have been made and houses built in the vicinity of the road throughout its whole extent.

New Road from Skibbereen to Crookhaven.

The fourth road made at the public expense under my direction has been conducted along a narrow mountain promontory, 20 miles in length, and rarely more than 5 miles in width, from the town of Skibbereen to the harbour of Crookhaven, in the county of Cork. This promontory is bounded on the north by Dunmanus Bay and on the south by the Atlantic Ocean.

The face of the country consists chiefly of mountain, rock, or bog, with occasional patches of arable land.

Previously to the commencement of the new road, this country was inaccessible to wheel-carriages, and even to horsemen in the winter season; notwithstanding which, owing to its vicinity to the sea, it was very populous, and contained 35,000 inhabitants, amongst which were three landed proprietors, and an equal number of protestant clergymen.

The principal object of opening this road was to render the harbour of Crookhaven accessible by land. This harbour is situated at the south-western extremity of Ireland, and consequently is much resorted to, during easterly winds, by all vessels coming from the westward and bound for England, and instances have been known of several men of war, and large fleets, consisting of East and West India-men, being detained there several weeks, without their having had any communication with Cork. The easterly winds prevented vessels sailing in that direction, and the road was not passable even for horsemen.

Owing to the mountainous nature of the central part of the promontory, the road has been laid out on the more level parts near the sea coast, but in several instances, where the steep precipices extend to the sea, it became necessary to form the road by building quay walls along the shore, and filling in the space between the walls and the rocks.

In other parts, to avoid the expense of cutting rocks, the road was conducted through comparatively flat bogs, many parts of which were so wet, when we began to mark out the line, that it was necessary to place boards under our feet to prevent us from sinking; in such situations our operations commenced by the draining of the bogs, which was effected at a trifling expense: and I have the pleasure to remark, that since the completion of the road, the greater part of the bogs thus drained has been improved and cultivated, and now produce excellent crops of potatoes and oats.

Road from the Town of Skibbereen, towards Bantry, in the County of Cork.

This new road, which is eight miles in length, was made partly at the expense of the Government, and partly at the expense of the county of Cork; by means of it a direct and easy communication has been opened through the mountain country situated between Bantry and Skibbereen.

New Entrance into the Town of Bandon, in the County of Cork.

The object of this road was to avoid a steep and an inconvenient hill, close to the northern entrance into the town of Bandon; it was completed in the year 1823, at the joint expense of Government and of his Grace the Duke of Devonshire.

Road from Union-hall, towards Rosscarbery, County of Cork.

This road was made at the joint expense of the Government and the Earl of Kingston; the object was to improve the line of communication between the fishery harbour of Union-hall and the great post road from Skibberreen to Rosscarbery, county of Cork.

New Road from the Town of Clonsilla, County of Cork, to the Fishery Pier at Ring.

This road, which skirts along the eastern shore of Clonsilla Harbour, was commenced during the famine of the summer of the year 1822, and was completed in the year 1823, at an expense of 200 l.

New Road from Timoleague, in the County of Cork, to Courtmashery.

This road is similarly circumstanced with the foregoing, and was also commenced in the summer of 1822; it has since been completed, and has been found very useful to the public. It length is 3 miles 3 furlongs.

New Road from Limerick, by Askeaton, to Robertstown, in the County of Limerick.

This road was commenced by me, by order of the Marquis Wellesley, in consequence of the several memorials and representations stating its necessity having been forwarded to him by the resident gentry and landed proprietors of that part of the county of Limerick, and has since been completed at the joint expense of the Government and of the county of Limerick, under the Act 1 Geo. 4, c. 81. The length of the new road is 19 statute miles.

This road was laid out along the southern bank of the river Shannon, and barely more than one mile distant from it. The country through which it passes is very different from the mountain tracts hitherto described, through which the new roads have been made, inasmuch as it is comparatively flat, and the soil is rich and fruitful.

Notwithstanding these advantageous circumstances, the main and only road to Limerick had been so injudiciously laid out as to be nearly impassable for loaded carriages, having unfortunately been carried over the only rocks and steep places which the country afforded.

This injudicious line had no doubt been adopted to avoid the low land through which the new road has been made. Formerly the low lands were flooded at every high tide in the river Shannon, but of late years the overflow has been prevented in a great measure by embankments that have been made along the course of the river.

In passing along those parts of the country which were liable to flood by the overflow of the Shannon, I caused embankments to be thrown up on the side next the river, of sufficient height to keep out the water in the event of any breaches taking place in the comparatively imperfect banks close to the river, and by this means the safety and permanence of the road has been secured.

Anglesey's Roads.

The last lines of road commenced by me in the Southern District were undertaken by order of his Excellency the Marquis of Anglesey, in the month of August 1828.

These roads were intended to open an extensive tract of mountain country which had hitherto been quite neglected, and which is situated on the borders of the counties of Tipperary and Limerick, and known by the names of the Keeper or Slieve Phelin Mountains.

This portion of mountain country is about 24 miles in length, and 20 in breadth, and comprehends an extent of about 480 square miles, throughout the whole of which there was no road passable for wheel-carriages.

Like

Like all the other mountain districts of the interior of Ireland, it is surrounded by a fertile country, and is bounded on the north and east by the rich lands of the Barony of Upper Ormond, in the neighbourhood of the towns of Nenagh and Borrisoileigh, and on the south and west by the well-known valley of the counties of Tipperary and Limerick, which, from its peculiar fruitfulness, has been called the Golden Vein.

This mountain tract has been for several years the asylum of outlaws, and also of several gangs of murderers and robbers, who, concealed in its fastnesses, had continued to elude the vigilance and pursuit of the police and the military.

Several outrages having been committed during the year 1828, by persons issuing from these fastnesses, the Marquis of Anglesey directed me to examine them, and to ascertain the best lines for opening direct communications through them. Having effected this object, and laid the surveys of the proposed roads before His Excellency, he proceeded himself to the county of Tipperary, and rode on horseback across the mountains, when I had an opportunity of pointing out to him the proposed lines for the new roads, and of receiving his approbation of them on the spot.

The roads which were laid out, the whole of which are in the county of Tipperary, consisted of two distinct lines, one extending in an east and west direction from the town of Newport to the village of Ballynahill, near Thurles, for the distance of 24 miles; and the other, in a north and south direction, at right angles to the first, opens a direct communication between the towns of Nenagh and Tipperary. The length of this new road is 20 miles.

Independently of the advantage which the mountain country will derive from these roads, they will be found most valuable from their opening much more direct lines of communication between the towns I have mentioned than had before existed. By means of the east and west road, the distance from the city of Limerick to Thurles and Kilkenny will be shortened 10 miles, and by the north and south line, the distance between Nenagh and Tipperary will be shortened 16 miles; and although both these roads pass through the midst of the mountains, they will be found on an average much more level than the old and circuitous ones.

The expense of Anglesey's Roads will be borne jointly by the Government and the county of Tipperary, and the estimate amounts to 17,200*l*.

In respect to the progress that has been made on these roads, I have to state, that the east and west road from Newport to Thurles (24 miles in length) was completed and opened to the public in the month of December last, and that the works on the Nenagh and Tipperary Road are in such a forward state that I expect they will be completed by the month of September next.

Since the works were begun no outrages have been committed in the mountains; but in the commencement we had much trouble with the labourers, who seemed to think they should have every thing their own way, and refused to work by task or measurement, according to the system laid down by me, and demanded to be employed by the day, but by patience and perseverance we at length overcame their prejudices, and on finding that when they worked fairly they always earned good wages, they gave up their opposition, and now prefer our system to their own; and none of our practised hands will work by the day who can get employment by task.

The general system adopted by me in carrying on the public works in the Southern District, has enabled me to effect what was hitherto considered to be impossible, namely, that 100*l*. of public money should go as far as the same amount of private money, and at the same time that the work should be substantially and perfectly executed.

The first principle laid down was, that no man or set of men should be employed by the day, but that all should be paid exactly in proportion to the quantity of work done; and secondly, that there should be no contractor or intermediate person between me and the workmen, who should find it his advantage to do the work imperfectly, and thereby make a greater profit by his contract.

According to my arrangements, one set of men was engaged to quarry stones, another to draw them; and afterwards masons were employed, all working by measurement, at prices proportioned to the work to be performed, and these prices were embodied in a book prepared for the purpose, which included all kinds of work connected with roads and bridges, and every variety of such, together with a table of prices for drawing loads by weight, according to distance and the nature of the load or passage.

Since the commencement of the works, in the year 1822, I have completed 205 m. 5 f. 14 perches of new road in the Southern District, nearly the whole of which have been made through the mountainous country, where great difficulties were constantly to be encountered, and where several large bridges and numerous small ones have been erected. The making of roads through mountains will always be more expensive than in flat countries: the plane of the road is generally to be cut out of the side of the mountain, heavy embankments are frequently required, and projecting rocks must be cut through; bridges, gullies or water-pipes, and drains, will necessarily be numerous, and the spans of the arches large, so as to afford an uninterrupted passage for the mountain torrents. The masonry of the bridges and retaining walls must also be very substantial and well put together, to resist the impetuosity of mountain floods, and the rocks and rubbish which are constantly forced against such works. All these circumstances combined have caused a greater expenditure than I had at first anticipated; but I can truly affirm, that no works have been undertaken, or expenses incurred, which I did not think absolutely necessary.

In conclusion I have to observe, that the several roads and bridges completed have now been opened to the public, some for four, some for three, and some for two years; and I am happy in being able to state, that at this moment they are all in excellent order, and that throughout the whole extent no failures have taken place, either in any of the bridges or earth embankments; and it is to be observed, that during the last two years there have been greater floods in the mountains of the South of Ireland than have been remembered for 50 years, and that even in the flat countries many large county bridges, of modern construction, were destroyed by the floods in the years 1829 and 1830.

Proposed Roads.

Though not expressly called upon by the Order of The House to recommend any new lines of road, which it would appear to be advisable to make, either at the expense of the Government, or jointly at the expense of the Government and the county in which they are situated, still I think it right to submit to The House, that the object for which I was sent down to the South-west of Ireland, namely, the opening new lines of road through the hitherto-inaccessible tracts of mountain country, and rendering them accessible in every part, is still incomplete, inasmuch as several lines of road, of great importance to the future improvement and tranquillity of the country, have not yet been commenced; at present I shall confine my observations to the principal communications of this kind which I should recommend for adoption.

I have already described, in the commencement of this Report, the mountain district situated between the river Shannon and river Blackwater, through a portion of which three new lines of road have already been made, and which have produced a very considerable effect in the improvement of the country through which they pass; but these improvements do not extend to the whole of the mountain district included within the boundaries described, as there still remains a considerable portion of country, extending northward from the river Blackwater to a line drawn between the towns of Castle Island and Newmarket, comprehending an area of about 200 square miles, or 128,000 acres, in which there is no road passable for horsemen during the winter months.

I have long contemplated the propriety of making a road through this neglected district, and of opening it to the markets of Cork and Mallow. The new road should commence at the town of Castle Island and proceed eastward through the mountains, and passing the collieries of Clonbarin, Drominagh, Dromagh and Coolslogh, join the the new lines of road to Cork, through the Bogra Mountains, at Clonmoon Bridge, over the river Blackwater.

This road, if completed, would open a direct communication from Tralee and Castle Island to the city of Cork, which is its best market, and would shorten the road between Tralee and Cork 14 miles, and between Castle Island and Cork 22 miles; the present distance from Tralee to Cork by Killarney being 76 miles, while by the proposed road it will be but 62.

This road is of the utmost importance to the future improvement of the country. It would pass through, or very close to, the whole of the valuable coal and culm collieries of the Southern District, and afford an easy communication with the surrounding

rounding country, many parts of which are in the greatest want of fuel for domestic purposes, and for burning lime for manure. It would also produce a most beneficial effect on the agriculture of the country through which it would pass. There are limestone quarries at both extremities, and the whole of the intervening country is covered by a stiff clay soil, which, when manured by lime, is susceptible of great improvement, and capable of producing excellent crops of oats and potatoes; at present, from want of roads, no limestone can be drawn into the mountain country, and consequently the land remains untilled, and the inhabitants are wretched, slothful and discontented.

The length of the proposed new road from Castle Island to Clonmeen Bridge, over the river Blackwater, is about 26 miles.

Observations similar to the foregoing are applicable to the opening of a proposed line of road from Killarney to Mallow and Waterford, along the north bank of the river Blackwater, and a considerable portion of the road from Castle Island to Cork, where it passes along the valley of that river, would be common to both roads; in fact, to complete this second line of communication, would only require about 13 miles of new road, which, added to 26 miles required for the completion of the road from Trillick to Cork, would make a total length of about 39 miles of new road.

No detailed survey has yet been made of either of these lines of road; but from my knowledge of the country, I am of opinion, that the distances would not exceed those I have mentioned, and that in round numbers the expense of completing them would be about 20,000 *l*.

In addition to the foregoing, I should recommend that a new line of road be made across the mountain ridge which separates Bantry Bay from the river Kenmare, in the counties of Kerry and Cork. At present there is no direct road (at least none deserving the name) between those points; and the traveller, in proceeding from Kenmare to Bantry, is now obliged to go round by Macroom, a distance of nearly 60 miles, while, in a direct line, the distance between those points is not more than 19 miles.

Having made a careful examination of the country, I discovered a very favourable line for a new road between Kenmare and Bantry, on which there would be no steep ascent on any part, and which line I should strongly recommend for adoption; it would not only open a direct communication between the important harbours of Kenmare and Bantry, but would complete the line of communication along the coast between Tarbert, on the river Shannon, and Skibbereen and Castle Island, on the south coast of the county of Cork.

APPENDIX,

CONTAINING A STATEMENT OF THE EXPENDITURE

ON ROADS, BRIDGES, &c.

PARTICULAR DESCRIPTION OF THE CONSTRUCTION OF THE ROADS.

THE principal roads made at the public expense in the Southern District are 32 feet in breadth between the fences, excepting where heavy side cutting or other difficulties occurred, in which cases the breadth was reduced to 26, and in some instances to 24 feet.

The surface soil of the country through which the roads pass consists either of heavy tenacious clay or of bog, in consequence the draining was expensive; and in addition to the usual gullies for passage of the water under the roads, it was necessary to make regular sewers in the direction of the road, on the side next the mountain, to carry off the water that issued from the hill side. *Guard drains* were also cut in the direction of the road, and from 7 to 10 yards above it, to catch the water descending from the mountain, and in some places, where the elevation of the mountain was considerable, a second guard drain was made at a distance of 10 yards above the first.

The plane of the road being formed and drained, the surface for the breadth of 16 feet was covered by a rough pavement, four inches in thickness, formed of quarried stones, whose greatest dimensions in any direction did not exceed four inches. The stones were always laid with the flattest side downwards, and the rough upper side and interstices were filled with small stones. The pavement, when completed, was covered with a layer of clay or loamy gravel two inches in thickness, and on this foundation, broken stones, the largest of which would pass through a ring two inches in diameter, were laid, generally eight inches in thickness, at the centre of the road, and six inches at the sides, extending one foot beyond the pavement at each side, so as to make the metalled surface of the road 18 feet in breadth. The broken stones were afterwards blinded by a covering of fine gravel or sand one inch in thickness.

In those places where the plane of the road consisted of very wet clay or bog, a layer of shingle or coarse slate, which material was very abundant in the country, was laid on the road as a foundation for the pavement, and, where stones were very scarce, a double thickness of the shingle was laid on, and the pavement was dispensed with.

STATEMENT OF EXPENDITURE.

Road from Newmarket, in the County of Cork, to Listowel, in the County of Kerry.

THIS road, on leaving Newmarket, has been laid out in the valley of the river Duhallow, and on reaching the summit of the country descends into the valley of the river Feale, in which valley it continues till it crosses the new road from Newcastle to Castle Island; from this point it passes over a mountain country, and having attained the summit, descends into the valley of the river Smarts, which it crosses, and afterwards continues to Listowel.

Owing to the number of streams tributary to the rivers Duhallow and Feale, which cross the line of the new road, an unusual number of bridges was required, some of which were of a considerable size, and in many cases it was necessary to sink the foundations of the abutments to the depth of from 10 to 16 feet below the bed of the river. The mountain country produced no stone which could be dressed by the hammer, or worked by the pick, punch, or chisel, and consequently the whole of the arch stones and faces of abutments of the large bridges, and the quoins of the arches and abutments of the smaller ones, were necessarily procured from the limestone quarries beyond the borders of the mountain district, frequently at a distance of 12 miles from the work; and the greater part of these stones were drawn over a mountain summit 600 feet in elevation, on the old track, which was repaired for the purpose, and which, for the greater part, ascended at an inclination of one foot in three.

Road from Newmarket to Listowel.

Length, 31 m. 57. 30.; breadth between fences, 32 feet; breadth of metalling, 21 feet.

Amount expended in fencing, fencing, draining and metalling the road - - -	£. s. d.
Amount expended in building gullies and retaining walls - - - - -	1,022 18 8
Amount expended in filling deep valleys and approaches to bridges, including quarry roads, repairs of old roads and damages - - - - -	1,095 13 8
Amount expended in building bridges of various dimensions, as specified in the following Schedule - - - - -	5,976 10 3
Total Expenditure on this Road - - - - -	£. 8,113 12 8

SCHEDULE OF BRIDGES.

BRIDGES	RIVERS.	Number of Arches	Span.		Base	Height of Abutments.				
			f. i.	f. i.		f. i.	f. i.	£.	s.	d.
1. Scartoon - - -	mountain stream	1	8	0	2	8	5	0	49	6 -
2. Aldersoth - - -	Dukallow - -	1	30	0	9	0	8	0	783	3 -
Alteration of river, retaining walls and quay walls - - - - -										
3. Coolagh, with inverted arch - - - - -	mountain stream	1	8	0	2	8	10	0	55	16 11
4. Tureenacill - - -	ditto - - -	1	8	0	2	8	10	0	33	16 11
5. Moosa - - - - -	ditto - - -	1	8	0	2	8	9	0	30	11 -
6. Mooneygerman, S. - - -	ditto - - -	1	8	0	2	8	10	0	34	10 -
7. Mooneygerman, N. - - -	ditto - - -	1	8	0	2	8	11	0	32	10 -
8. Moosbeg, South - - -	ditto - - -	1	6	0	2	8	9	0	27	14 7
9. Moosbeg - - - -	ditto - - -	1	2	0	2	8	9	0	31	9 2
10. Moosbeg, North - - -	ditto - - -	1	2	0	2	8	9	0	37	8 3
11. Capel's Bridge - - -	ditto - - -	1	8	0	2	8	9	0	30	8 8
12. Meentiana, South - - -	ditto - - -	1	12	0	6	0	15	0	151	19 11
13. Meentiana, North - - -	ditto - - -	1	12	0	6	0	11	0	141	18 4
14. Hanson's Bridge - - -	ditto - - -	1	6	0	3	0	6	0	28	6 1
15. Glensknockmoun D ^r , high retaining walls - - - - -	ditto - - -	1	12	0	6	0	18	0	197	19 3
D ^r , high retaining walls - - - - -										
16. Tooreenagross - - -	ditto - - -	1	8	0	3	8	6	0	34	18 8
17. Glenskil - - - -	Glaskyloonskil	1	23	0	4	0	8	0	233	9 8
18. Brannagh - - - -	Brannagh - -	1	30	0	9	0	7	0	439	17 3
19. Abane - - - - -	Gliska Abane	1	8	0	3	8	7	0	32	15 8
20. Clyneagh - - - -	Clyneagh - -	1	42	0	10	6	7	0	503	13 1
21. Glashambrack - - -	Glashambrack	1	8	0	3	6	8	0	111	10 7
D ^r , high retaining walls - - - - -										
22. Moormore - - - -	Moormore - -	3	11	0	-	-	8	0	411	8 -
D ^r , high retaining walls - - - - -										
23. Oelbeg - - - - -	Oelbeg - - -	3	18	0	3	0	9	0	574	8 3
24. Inchroe - - - -	Inchroe - - -	1	8	0	3	6	12	0	15	1 2
25. Knockmashilly - - -	mountain stream	1	8	0	3	6	8	0	38	-
26. Knight's Bridge - - -	Stuart - - -	3	30	0	6	0	13	0	1,156	10 6
									£.	5,976 10 3

Road from Newcastle by Abbeyfeale to Castle Island.

The general nature and character of the country through which this road passes, as well as nearly the whole of the other roads made at the public expense in the Southern District, is so similar to that from Newmarket to Listowel, already described, that I think it unnecessary to particularise them. I shall only observe, in respect to the Newcastle and Castle Island road, that the rivers crossed were unusually large, and consequently the bridges were expensive in proportion.

The river Feale has been passed by a bridge of one arch, of 70 feet span, and 20 feet rise. In the old bridge, which crossed the river half a mile above the new one, and which was erected at the joint expense of the Counties of Limerick and Kerry, there were 21 arches; no trace now remains of this bridge, it having been abandoned to the impetuosity of the mountain torrents by the Grand Juries of both counties, who became weary of the annual demands for its repairs, as every winter one or more of the arches were carried away by the action of the floods, which frequently rise and fall twelve feet in the course of six hours.

Road from Newcastle by Abbeyfeale to Castle Island.

Length, 26 m. 7 f. 16 p.; Breadth between fences, 32 feet; Breadth of metalling, 21 feet.

	£.	s.	d.
Amount expended in forming fences, draining and metalling the Road	15,785	9	5
Amount expended in building gullies	810	1	0
Amount expended in filling deep ruts and approaches to bridges, including quarry-roads, repairs of old roads and damages	847	18	7
Amount expended in building bridges of various dimensions, as specified in the following Schedule	5,529	19	9½
Total expenditure on this Road	27,043	9	3½

SCHEDULE OF BRIDGES.

BRIDGES.	RIVERS.	Number of Arches.	Span.	Rise.	Height of Abutments.	—
			F. f. p.	F. f. p.	F. f. p.	£. s. d.
1. Hollins's Bridge	stream	1	8 0	4 8	3 0	19 16 4
2. Byrne Bridge	mountain stream	3	18 0	3 0	40 0	260 — —
3. Ditto, retaining walls	"	"	"	"	"	37 18 0½
4. Doonakuna	mountain stream	1	8 0	2 8	11 0	50 — 3
5. Inchabane	ditto	1	11 0	3 8	10 0	60 9 0
6. Goughan Bridge	Ullan	1	55 0	14 0	12 0	1,176 9 4
7. Ditto, retaining walls, and flood bridge	"	3	11 0	3 8	8 0	923 — —
8. Carragh	mountain stream	1	8 0	2 8	9 0	53 2 9½
9. Glashanagrove	ditto	1	8 0	2 8	14 0	91 8 2
10. Ditto, retaining walls	"	"	"	"	"	139 10 10½
11. Kilmalea	mountain stream	1	8 0	2 8	6 0	44 14 6½
12. Wellesley Bridge	Feale	1	70 0	30 0	14 0	4,614 7 —½
13. Ditto, E. Bridge, retaining walls and approaches	"	1	8 0	2 8	12 0	— — —
14. Ditto, W. Bridge, and retaining walls and approaches	"	2	11 0	3 8	12 0	4,037 2 —
15. Kilmasham	mountain stream	1	8 0	2 8	10 0	58 16 7
16. Knockbreck	ditto	1	8 0	2 8	10 0	180 4 6
17. Camroemacilly	ditto	1	8 0	2 8	9 0	50 14 2½
18. Headly Bridge	Osbeg	1	30 0	9 0	8 0	741 18 0
19. Ditto, flood-arch, approaches and new river course	"	1	11 0	3 8	8 0	370 19 3½
20. Tooreenmore, East	mountain stream	1	8 0	2 8	13 0	120 1 10
21. Tooreenmore, West	ditto	1	8 0	2 8	11 0	93 5 7
22. Owsa	ditto	2	8 0	2 8	7 0	121 4 2
						£. 9,509 19 9½

Road from Newmarket towards Charleville.

Length, 14 miles; breadth between fences, 30 feet; breadth of metalling, 18 feet.

	£.	s.	d.
Amount expended in forming, fencing, draining and metalling the road - -	5739	17	-
Amount expended in building gullies - - - - -	490	16	9
Amount expended in filling deep valleys and approaches to bridges, including quarry roads and damages - - - - -	1,150	10	6
Amount expended in building bridges of various dimensions, as specified in the following Schedule - - - - -	2,273	19	7
Total Expenditure on this Road - - - £	11,584	16	10

SCHEDULE OF BRIDGES.

BRIDGES.	RIVERS.	Number of Arches.	Span.	Height.	Height of Abutments.	£.	s.	d.
1. Scarteen culvert, with inverted arch - -	mountain stream	1	5 0	3 6	3 0	39	10	6
2. Mount Kettle - -	ditto -	1	8 0	4 0	6 0	46	16	-
3. Berley Hill - -	Ormeau -	1	12 0	6 0	9 0	120	6	4
4. Toorshall - -	mountain stream	1	8 0	4 0	3 0	39	10	-
5. Toorad - -	ditto -	1	8 0	4 0	3 0	45	10	-
6. Knockalla - -	ditto -	1	12 0	6 0	10 0	69	17	1
7. Alla - -	Alla -	2	24 0	7 0	8 0	1,063	1	3
8. Freemount, with quay walls - -	mountain stream	1	3 0	-	-	76	5	1
9. Knockglass - -	ditto -	1	8 0	4 0	6 8	36	8	-
10. Carraghmore - -	ditto -	1	8 0	4 0	7 0	33	16	-
11. Anglem - -	ditto -	1	8 0	2 8	7 6	38	9	6
12. Redbeg, West - -	bog stream -	1	8 0	4 0	10 0	68	12	2
13. Redbeg, East - -	ditto -	1	8 0	4 0	10 0	70	19	9
Total Expenditure on Bridges - - - £						2,273	19	7

Road from Kanturk, through the Bogra Mountains, to the City of Cork.

Length of Road executed by Mr. Griffith, 14 M. 4 R. 0 P.; breadth of road between the fences, 24 feet; breadth of metalling, 17 feet.

	£.	s.	d.
Amount expended in forming, fencing, draining and metalling the road - -	5,568	4	3
Amount expended in building gullies and retaining walls - - - - -	1,121	13	6
Amount expended in cutting rocks in line of road, embanking, and filling deep valleys and approaches to bridges, quarry roads, quay walls and jetties - -	1,360	6	-
Amount expended in building bridges of various dimensions, as specified in the following Schedule - - - - -	1,681	13	-
Total Expenditure on this Road - - - £	9,741	16	9

(continued)

SCHEDULE OF BRIDGES.

BRIDGES.	RIVERS.	Number of Arches.	Span.		Hrs.	Height of Abutments.		—				
			F.	L.	F.	L.	F.	L.	£.	s.	d.	
1. Falya Bridge	mountain stream	1	8	0	2	8	7	0	32	7	2	
2. Redgate	ditto	1	8	0	2	8	6	6	32	19	—	
3. Redgate, South	ditto	1	8	0	2	8	7	0	34	19	4	
4. Fernoyla	Fernoyla	1	24	0	7	0	8	0	394	14	11	
Ditch, retaining walls and filling												
5. Lyce	mountain stream	1	8	0	2	8	7	0	32	4	6	
6. Glynn	ditto	1	8	0	2	8	6	6	36	17	6	
7. Falya, North	ditto	1	12	0	6	0	7	0	120	11	1	
8. Falya, South	ditto	1	8	0	2	8	6	0	34	5	1	
9. Nadli	Nedhauffer	1	30	0	6	0	8	0	370	7	4	
Ditch retaining walls, temporary river & filling												
10. Monavell	mountain stream	1	8	0	2	8	6	6	33	2	9	
11. Nadli-bag	ditto	1	8	0	2	8	7	0	35	1	1	
12. Glasneven, including high retaining walls	ditto	1	18	0	6	0	15	0	225	16	—	
13. Baradonia	ditto	1	8	0	2	8	7	0	35	9	2	
14. Callaghan	ditto	1	8	0	2	8	7	0	32	0	7	
15. Leoney	ditto	1	8	0	2	8	6	0	35	18	—	
16. Toomeys	ditto	1	8	0	2	8	6	0	32	12	0	
Total Expenditure on Bridges, &c.									£.	1,081	12	—

Road from Macroom, in the County of Cork, to Glenties and Killybegs, in the County of Kerry.
Length, 19 miles; breadth between the fences, 30 feet; breadth of metalling, 21 feet.

Amount expended in forming, fencing, draining, and metalling the road	£.	s.	d.
Amount expended in building gullets and retaining walls	7,375	4	3
Amount expended in filling deep valleys and approaches to bridges	2,700	—	—
Amount expended in building bridges of various dimensions, as detailed in the following Schedule	810	15	—
	9,018	17	3
Total Amount	£.	13,564	16 8

SCHEDULE OF BRIDGES.

BRIDGES.	RIVERS.	Number of Arches.	Span.	Hrs.	Height of Abutments.	—				
1. Cahir	mountain stream	1	8 0	2 8	10 0	£.	s.	d.		
2. Foberts, repairs of old bridge, adding three arches, with long retaining walls	mountain river	3	10 0	5 0	3 0	350	—	—		
3. Coolvick	mountain stream	1	8 0	2 8	6 6	40	—	—		
4. Ballyvaughan	ditto	1	8 0	2 8	6 6	40	—	—		
5. Bally Bridge, and retaining walls	Bally	1	8 0	2 8	6 0	150	—	—		
6. Cahir	mountain river	1	24 0	7 0	7 0	34	5	10		
7. Derrynagar	mountain stream	1	15 0	5 0	18 0	121	7	6		
Ditch approaches, walls, and gullet							—	—		
8. Carrick	mountain river	1	20 0	5 0	13 0	190	13	8		
9. Carrick	ditto	1	20 0	5 0	8 0	70	17	1		
10. ditto	mountain stream	1	8 0	2 8	8 0	30	—	—		
11. ditto	ditto	1	8 0	2 8	7 0	30	—	—		
12. Derrig	mountain river	1	20 0	5 0	8 0	80	7	—		
13. Derrig	mountain stream	1	8 0	2 8	7 0	30	—	—		
14. Ogarra	Ogarra	1	24 0	7 0	7 0	243	19	10		
Filling and sinking foundations							—	—		
15. Lush	Lush	1	30 0	6 0	13 0	157	5	7		
Retaining walls & gulleys							408	2	9	
Total Expenditure on Bridges, &c.							£.	2,618	17	4

Road from Skibbereen to Crookhaven, and from Skibbereen towards Bantry.

Length of Road, 18½ miles; breadth between fences, 25 feet; breadth of metalling, 21 feet.

	£	s.	d.
Amount expended in forming, fencing, draining, and metalling the road - -	9,071	11	10
Amount expended in building gullies and retaining walls, sea walls and parapets, and cutting rock on line of road - - - - -	1,604	15	4
Amount expended in building of bridges of various dimensions, as specified in the following Schedule - - - - -	1,570	-	7
Total Expenditure on this Road - - - £.	12,406	7	9

SCHEDULE OF BRIDGES.

BRIDGES	RIVERS.	Number of Arches.	Span.	No.	Height of Abutments	—
			F. 1.	F. 1.	F. 1.	£ s. d.
1. Ballyhill, including retaining walls - - -	Roaringwater -	5	16 0	4 0	13 0	453 - 10½
2. Ballyclare, including retaining walls - - -	mountain river -	1	16 0	4 0	5 0	164 2 3½
3. Ballydehob, repairs of old Bridge, adding three new arches and parapets - - -	- - -	-	-	-	-	211 2 10
Retaining walls and filling - - -	- - -	-	-	-	-	250 15 9
4. Glashire - - -	log river - - -	1	12 0	4 0	10 0	97 4 10½
5. Rathcoole - - -	mountain stream -	1	12 0	4 0	8 0	61 7 11½
6. Coonahoragun - - -	ditto - - -	1	12 0	4 0	8 0	62 18 -
7. Ballinacree - - -	ditto - - -	1	8 0	2 8	7 6	38 9 9½
8. Loversburg - - -	ditto - - -	1	8 0	2 8	7 0	24 9 7
9. Loversburg, West - - -	ditto - - -	1	8 0	2 8	6 6	41 12 -
10. Alur - - -	ditto - - -	1	8 0	2 8	6 0	38 - 11
11. Yournore - - -	ditto - - -	1	12 0	4 0	8 0	57 19 9½
12. Ballyrisht - - -	ditto - - -	1	8 0	2 8	7 0	49 15 7
13. Goulton - - -	ditto - - -	1	8 0	2 8	7 6	51 9 11½
14. Conadowney - - -	ditto - - -	1	10 0	3 6	6 0	37 7 7
15. Aughrilla - - -	ditto - - -	1	10 0	3 6	10 0	52 2 9½
Expenditure on Bridges, &c. - - - £.						1,570 - 7

SUNDRY ROADS

Short distances in the County of Cork.

	£	s.	d.
Amount expended in making a new entrance into the Town of Bandon - -	153	16	11
Amount expended on the new road from Clonsilla to Ring - - -	184	12	4
Amount expended on the new road from Union Hall towards Roscomberly - -	129	4	7½
Ditto, bridge on road - - - - -	55	7	8
Amount expended on road from Timoleague to Courtmarshy - - -	94	6	2
Amount expended in completing quay walls in the City of Cork - - -	58	3	1
Amount - - - £.	713	10	9½

Road from Llanerch by Asherton to Robertstown.

Length, 19 miles; breadth between the fence-walls, 32 feet; breadth of metalling, 21 feet.

	£.	s.	d.
Amount expended in forming, fencing, draining and metalling the road, tide- sluices, &c. - - - - -	70	5	9
Amount expended in building gullies and retaining-walls - - - - -	0	4	5
Amount expended in making embankments through Claris, Court, and other bogs and marshes - - - - -	1	0	5
Amount expended in building bridges of various dimensions, as detailed in the fol- lowing Schedule - - - - -	8	0	7
Total amount of this Road - - - £.	10	5	7

SCHEDULE OF BRIDGES.

BRIDGES.	RIVERS.	Number of Arches.	Span.	Rise.	Height of Abutments	—
1. Claris - - -	Claris - -	1	12 0	2 0	11 0	107 9 -
2. Court-Bog, with tide- sluice and filling -	stream - -	1	5 0	2 8	8 0	79 2 7 1/2
3. Hollypark, East - -	ditto - -	1	8 0	2 8	8 0	60 - -
4. Hollypark, West - -	- - - -	1	6 0	2 0	7 0	30 - -
5. Castle-Hewson - -	stream - -	1	9 0	1 6	8 0	47 6 5 1/2
Approaches and gullies - - - - -	- - - -	- -	- -	- -	- -	23 19 4
6. Boeshilla - - -	stream - -	3	5 0	1 6	4 0	41 8 1
7. Robertstown, East - -	riff-race - -	1	12 0	3 0	1 6	54 19 5 1/2
8. Robertstown, West, in- cluding long and high retaining-walls - -	stream - -	1	12 0	3 0	8 0	57 12 2
9. Repairs of Court Bridge, and building tollhouse -	Mague - -	- -	- -	- -	- -	44 10 8 1/2
10. Lengthening four old bridges on old road -	- - - -	- -	- -	- -	- -	40 - -
Total Expenditure on Bridges - - - £.	- - -	- -	- -	- -	- -	80 7 10

ANGLESEY'S ROADS.

Road from Newport, through the Kesper Mountains, to Tharles.

Length, 23 M. 7 F. 0 P.; breadth between the fences, 24 feet; breadth of metalling, 16 feet.

	£.	s.	d.
Amount expended in forming, fencing, draining and metalling the road - - -	6	0	5
Amount expended in building gullies - - - - -	0	5	5
Amount expended in building sundry bridges of various dimensions, as specified in the following Schedule, including embankments and filling - - - - -	2	5	5
Total Expenditure on this Road - - - £.	9	0	5

ROADS IN THE SOUTHERN DISTRICT OF IRELAND. 17

SCHEDULE OF BRIDGES.

BRIDGES.	RIVERS.	Number of Arches.	Span.	Kind.	Height at Abutments.	—
1. Gate Glen, -	stream - -	1	4 0	T. F.	8 0	£. s. d.
including filling -	- -	-	-	-	-	43 16 7½
2. M'Dermott's, -	ditto - -	1	4 0	- -	8 0	25 1 7
3. Bichugram, -	ditto - -	1	4 0	- -	8 0	87 5 8
including filling -	- -	-	-	-	-	83 6 6½
4. Teoncnbrin, E. -	mountain stream -	1	11 0	3 8	- -	417 14 5½
5. Teoncnbrin, W. -	ditto - -	3	18 0	3 0	- -	125 6 8
6. Forge Glen, -	stream - -	-	4 0	- -	8 0	69 6 8
including filling -	- -	-	-	-	-	138 4 7½
7. Caple, -	stream - -	-	4 0	- -	8 0	143 17 7½
including filling -	- -	-	-	-	-	85 7 4
8. Middle Glen -	stream - -	-	5 0	3 6	9 0	54 7 5½
9. East Glen -	stream - -	-	8 0	3 8	10 0	18 2 11½
10. Coarsmore -	stream - -	1	19 0	6 0	12 0	438 5 10
11. Foyinadrough, West -	large stream -	-	3 0	- -	8 0	9 5 4½
12. Foyinadrough, East -	stream - -	-	3 0	- -	8 0	77 18 10
13. Mary-dale -	Kilcommen river -	2	24 0	7 0	9 0	40 7 5½
14. Inchavillaga -	stream - -	3	4 0	- -	6 0	339 8 9½
15. Guernon Glen -	stream - -	1	5 0	- -	10 0	40 7 5½
16. Upper Church -	stream - -	1	11 0	3 8	7 0	40 7 5½
17. Cleda -	Cleda river -	2	24 0	7 0	14 0	40 10 9
Lengthening Old Bridges -	- -	-	-	-	-	-
Total Expenditure on Bridges -						£ 2,545 14 5½

Anglesey's Road.—Road from Newagh to Tipperary, (in progress.)

Length, 30 miles; breadth of road between fences, 24 feet; breadth of metalling, 18 feet.

Amount expended in forming, fencing, draining, and metalling the road - -	£. s. d.
Amount expended in building gullies, and preparing materials for bridges - -	410 5 -
Total already expended - - -	£ 3,055 15 4½

SUNDRY PAYMENTS made which are not included in the Road Accounts.

James Jardine, for making surveys for various roads during the years 1823, 1824, 1825, and 1826 - - -	£. s. d.
Thomas Kearney, for similar services - - -	146 5 7½
Thomas Barclay, ditto - - -	227 9 2½
William Bald, drawing map of Southern District - - -	1 12 10
Amount of grant to the Corporation of the City of Cork towards opening the new entrance into that city - - -	15 - -
Amount - - -	£ 4,615 7 8
Amount - - -	£ 5,065 16 4½

STATEMENT of EXPENDITURE on BRIDGES, designed by Richard Griffiths, C.E., and executed under his direction, by Contract Grants for one half, the amount of which were made under the 18 Geo. 4, c. 81, and paid out of the Consolidated Fund.

Bridge over the river Felle at Listowel, in the county of Kerry - - -	£. s. d.
This bridge consists of five segment arches each 50 feet in span, 13 feet rise.	2,418 7 -
Bridge over the South Branch of the river Lee, in the City of Cork, amount paid out of the Consolidated Fund - - -	4,615 7 8
This bridge consists of two semi-elliptical arches each 44 feet in span, and 21 feet rise, having an iron bascule bridge of 38 feet in span in the centre, for the passage of ships up the river.	- - -

GENERAL STATEMENT of Cash received and expended by *Richard Griffith*, Civil Engineer, between the 1st January 1822 and 31st December 1830.

GENERAL STATEMENT of Cash received on account of the Public Works in the Southern District, between the 1st January 1822 and 31st of December 1830.

1822:	£.	s.	d.	£.	s.	d.
Cash received from the Treasury for employing the poor in the counties of Limerick, Cork, and county of the city of Cork	11,071	8	1½			
Cash received for making advances on account of penitentiary works in the counties of Limerick, Kerry, Cork, and county of the city of Cork	3,141	15	1½			
				14,212	-	2
Cash received from the Treasury on account of the new roads made at the public expense, under 3d Geo. 4, c. 34	3,473	10	7			
Cash received from the Treasury on account of roads under the 3d Geo. 4, c. 34, between the 1st January 1823 and 31st December 1830	34,052	8	9½			
Total received from Treasury on account of Roads	-	-	-	97,505	18	9½
Received from Treasury consist of grant for opening the new western entrance into the City of Cork	-	-	-	4,615	7	8
Total received from Treasury on all accounts	-	-	-	116,324	6	8½
Cash received from County Treasurers on account of Roads:						
Cash received from treasurer of the City of Cork	198	13	7½			
Do do from treasurer of the county of Cork, between the 1st of January 1822 and 31st of December 1830	12,100	6	10½			
Cash received from treasurer of the county of Limerick, between the same periods	8,575	11	7½			
Cash received from treasurer of the city of Limerick, between the same periods	517	15	4			
Cash received from treasurer of the county of Kerry, between the same periods	2,410	4	7			
Cash received from treasurer of the county of Tipperary, between the same periods	5,891	15	8			
Total Amount received from County Treasurers on account of Roads	-	-	-	20,494	1	8½
Total Cash received on all accounts	-	-	-	145,888	8	5

STATEMENT of the Situation, Length, and Expenditure on the several Roads made at the Public Expense in the Counties of Cork, Kerry, Limerick and Tipperary, in Ireland, by Richard Griffith, Civil Engineer, between the 1st of January 1822 and 31st of December 1830.

	£	s	d.	£	s	d.
Amount expended in employing the poor in repairing old roads in the counties of Limerick, Cork, and the county of the city of Cork, between the 1st June and 1st of August 1822	11,071	8	1 ½			
Amount expended during the same period in advances on account of presentment works in the counties of Limerick, Kerry, Cork, and county of the city of Cork, which advances were subsequently repaid by the treasurers of said counties	3,141	12	1 ½	14,213	-	3

EXPENDITURE ON NEW ROADS.

	Length of Road, Statute Measures.	Boroughs in Towns.	When completed.	Expenditure in forming, levelling, draining and metalling.	Expenditure in Bridges, Gates, retaining Walls, and Embankments.	TOTALS.
	M. Y. P.	Feet.	Year.	£ s. d.	£ s. d.	£ s. d.
New road from Newmarket, in the county of Cork, to Listowel, in the county of Kerry	31 5 36	39	1825	16,485 18 8 ½	8,338 13 11 ½	25,355 12 8
New road from Newcastle, in the county of Limerick, to Castle Island, in the county of Kerry	27 0 18	32	1827	15,785 9 5	11,227 19 10 ½	27,043 9 3 ½
New road from Newmarket towards Charleville, in the county of Cork	14 0 0	39	1826	7,739 17 -	3,844 19 10	11,584 16 10
New road from Kinsale to Cork, through the Bogra Mountains, in the county of Cork	14 4 0	24	1827	5,578 4 3	4,173 11 6	9,741 15 9
New road from Mallow, in the county of Cork, to Glenside and Killybeggy, in the county of Kerry	19 0 0	32	1827	7,375 4 3 ½	6,189 11 4 ½	13,564 15 8
New road from Skibbereen to Crookhaven, and Skibbereen to Bantry, in the county of Cork	28 4 0	23	1826	9,071 11 10	4,294 15 11	13,406 7 9
Expenditure on sundry short roads in the county of Cork	7 7 0	-	-	713 10 9 ½	-	713 10 9 ½
New road from Limerick, by Askeaton, to Robertstown, in the county of Limerick	19 0 0	32	1827	7,063 9 - ½	1,604 9 2	10,367 11 2 ½
New road from Newport to Charles, in the county of Tipperary	23 7 0	24	1830	6,686 5 6	1,870 19 10	9,557 5 4
New road from Nenagh to Tipperary, in progress, to be completed 1831	20 1 0	24	-	3,315 1 3 ½	410 5 -	3,745 6 3 ½
Total length of Road made by Richard Griffith, and now expended under the direction of Richard Griffith on new Roads and Bridges	205 5 14	-	-	81,535 12 1 ½	44,105 1 5 ½	125,640 13 7
Sundry payments made which are not connected with the above Roads	-	-	-	-	-	5,015 16 4 ½
Cash expended in the employment of the poor in the year 1822	-	-	-	-	-	14,213 - 3
Cash on hand to be applied to the completion of the Nenagh and Tipperary Road	-	-	-	-	-	1,018 18 3 ½
GENERAL TOTAL	-	-	-	-	-	145,886 8 5